Note: Factual accuracy results of interviews with L. Moog and P. DenHartog have not yet been incorporated into this revision.

Issues appearing in black underline text are new issues. Issues appearing in red italics text are perceived as conflicting issues. Issues appearing in blue italics text are perceived as open issues.

# Responsibilities and Interfaces for AOD Technical Systems

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Prepared by:
R. Klaffky, AOD Associate Division Director
Approved by:
Group Leaders of all APS technical groups listed in this document.
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## **Purpose**

The purpose of this document is to define the general responsibilities and interfaces for APS technical groups, and to define specific hardware interfaces in cases where a hardware interface exists between different APS groups.

#### Scope

The scope of this document is limited to hardware interfaces for APS technical systems. This document does not address software or administrative interfaces.

## **Applicability**

This document is applicable to all APS Group Leaders and Managers listed in this document.

This document includes the definition of responsibilities and interfaces for the following AOD Groups / Sections:

Main Control Room Operations Group **Operations Analysis Group Diagnostics Group Experiment Floor Operations Group Beamline Controls and Data Acquisition Group Information Systems Support Group User Administration and Support Group CAT Operations Group Building Management and Services Facility Engineering Group User Technical Interface APS Radiation Scientist Health Physics Section** Safety Personnel **Procurement Section Quality Assurance Document Control** 

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# **Main Control Room Operations Group:**

## **General Responsibilities:**

The Main Control Room Operations Group has the operational responsibility for all accelerators, storage ring and all particle transport lines. The group is responsible for the start-up, operation and shutdown of accelerators, storage ring and all particle transport lines. It is also responsible for authorizing maintenance and repair activities, integrating shutdown maintenance schedules, for determining and assigning responsibility for faults and downtime, maintaining operating records and for identifying system malfunctions that prevent normal operation. The group is responsible for supervising and overseeing group LOTO during maintenance periods and for verification that all applicable startup checklists have been followed by responsible groups.

## **General Interfaces:**

The level of sub-system responsibility of the Operations Group is mutually determined by the system group and operations by means of reviewed and approved procedures. The MCR Operations Group relies on all groups, which have maintenance responsibility for the accelerator, storage ring and transport systems to provide updated call-in lists and operator notes to support the operation of their systems.

## **Group Specific Interfaces:**

### **AOD Operations Analysis**

MCR Operations Group relies on the physics support provided by OAG to analyze, identify and prescribe solutions for operations related problems, which cannot be corrected by the operating crew or their immediate supervisors.

#### **AOD Experiment Floor Operations**

Provide close interface for information exchange on current operation, problem status and potential issues, which may affect either storage ring operation and/or user experiments.

AOD Beamline Control and Data Acquisition

AOD Information Systems Support (Computer Support and MIS Sections)

**AOD User Administration and Support** 

**AOD Technical Beamline Support** 

**AOD Site Operations** 

ASD Controls Group

Hardware associated with ACIS "Controlled Access" communications (intercoms and video links to the MCR) are the responsibility of ASD Controls Group. [This issue needs to be discussed by AOD-MCR, ASD-Controls, and ASD-ES Groups.

The ASD Controls Group is responsible for the maintenance of IOCs. The Main Control Room Operations Group is responsible for the maintenance and support of the EPICS databases and control screens that provide remote status information for ACIS. (Tasks now being performed by S. Christensen).

The AOD MCR requests ID control functional changes through the XFE ID Systems Manager which requests implementation by the ASD CTLS Group.

### ASD Electrical Systems

MCR Operators are responsible for the tunnel mirrors, and for verifying that are in place. However the Group that removes the mirrors is responsible for reporting it to the MCR, and for replacing the mirrors when the work is completed.

**ASD Mechanical Systems** 

ASD RF Systems

**ASD Survey and Alignment** 

**ASD Vacuum Systems** 

XFD Magnetic Devices Group

XFD Experimental Facilities Engineering

The AOD MCR operates the Storage Ring within the maximum current front end operations provided by XFE.

XFE provides maximum current operations envelope for front ends to the AOD MCR.

**APS CAT Community** 

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# **Operations Analysis Group:**

## **General Responsibilities:**

The Operations Analysis Group is responsible for developing techniques and algorithms to support effective operation of the APS facility and for transferring such algorithms to the MCR Operations Group and for providing day-to-day diagnostic assistance to both accelerator operators and users when operating abnormalities occur. The group is also responsible for developing and implementing new operating modes to enhance both the performance of the facility as well as provide new and unique capabilities for users, and for computations to determine continued top-up safety for the various new storage ring configurations. The group is responsible for providing staff to act as machine managers and for providing accelerator physics leadership and support for new accelerator concept development.

Update of the Technical Systems Status, Data Logs and web pages related to front end vacuum. (This information is currently available on the AOD web page for Operations and is useful for maintaining FE Vacuum. The information was maintained by Mohan and is no longer his responsibility. L. Emery reported to Barsz that R. Soliday now has this task.)

#### **General Interfaces:**

The members of the OAG group interact with most technical accelerator support groups through their responsibility as machine managers, by reviewing, approving and/or developing specifications and requirements for systems within their area of responsibility.

### **Group Specific Interfaces:**

AOD Main Control Room Operations

OAG interacts with operators by providing trouble diagnosis and development of operating tools.

**AOD Diagnostics** 

**AOD Operations Analysis** 

**AOD** Experiment Floor Operations

OAG interacts with floor coordinators, who usually will be the first APS staff to be contacted by users when unexplained beam related issues appear at the beamlines. The floor coordinators establish the direct line communication between the beamline representatives and the members of OAG and maintain contact to ensure that problems are resolved.

AOD Beamline Control and Data Acquisition

AOD Information Systems Support (Computer Support and MIS Sections)

AOD User Administration and Support

**AOD Technical Beamline Support** 

**AOD Site Operations** 

ASD Controls Group

Performance requirements for control and readback of accelerator systems under EPICS control will be specified by the ASD Controls Group together with the Operations Analysis Groups.

**ASD Electrical Systems** 

**ASD Mechanical Systems** 

**ASD RF Systems** 

ASD Survey and Alignment

**ASD Vacuum Systems** 

AOD-OAG is responsible for update of the Technical Systems Status, Data Logs and web pages related to front end vacuum by R. Soliday

XFD Magnetic Devices Group

AOD Operations Analysis provides the electron beam specifications to MD Group that are used for defining ID requirements and for calculating the properties of the ID light.

The MD and AOG Groups work together on the commissioning of IDs.

XFD Experimental Facilities Engineering

**APS CAT Community** 

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# **Diagnostics Group:**

## **General Responsibilities:**

The Diagnostics Group is responsible for the design, maintenance and upgrade of particle beam diagnostics in all accelerators and transport systems and for the operation and maintenance of the x-ray bpm system. The group is responsible for the operation of the real-time feedback system and for the planning and coordination of all related upgrades. The group is also responsible for the design, maintenance, and upgrades of sector 35 x-ray sources and instrumentation for beam diagnostic measurements and for developing new, unique beam instrumentation for future APS upgrades or new accelerator applications.

#### **General Interfaces:**

## **Group Specific Interfaces:**

**AOD Main Control Room Operations** 

AOD Diagnostics

**AOD Operations Analysis** 

The OAG group provides support to diagnostics in providing device specification requirements for both routine operational needs as well as machine studies related needs.

**AOD Experiment Floor Operations** 

The Diagnostice Group Provides information regarding the diagnostics and information screens for beam properties and stability, so the information can be clearly disseminated by the floor coordinators to both frequent and first-time users.

AOD Beamline Control and Data Acquisition

AOD Information Systems Support (Computer Support and MIS Sections)

AOD User Administration and Support

AOD Technical Beamline Support

**AOD Site Operations** 

ASD Controls Group

The ASD Controls Group provides interfaces to control system with the Diagnostic group designed signal acquisition and processing. The actual interface point needs to be determined on a case-by-case basis. (Ned to provide correct text after speaking with Om Singh)

For the Storage Ring and Booster BPM systems, the Controls group is responsible for the VXI/MXI and VXI bpm timing modules. AOD Diagnostics is responsible for all other BPM VXI equipment including the VXI crate and power supply/ (Ned to provide correct text after speaking with Om Singh)

## **ASD Electrical Systems**

Storage ring correctors receive setpoints from the CMPSI (corrector magnet power supply interface) cards in the real-time orbit feedback IOCs. The interface between Electrical Systems Group and AOD Diagnostics Group is the fiber cables that carry the setpoints from the CMPSIs to the power supply cabinets. (This text needs to be confirmed by AOD)

ES Group is responsible for the Front-End EPS system for Sector-35 diagnostic beamlines

ES Group is responsible for the PSS system for Sector-35 diagnostic beamlines.

#### **ASD Mechanical Systems**

Mechanical sub-systems for diagnostics (such as flag actuators, positioners, etc) are designed and maintained by ASD Mechanical Engineering Group. This also includes mechanical components related to the xbpm stages/supports and sector 35 front-end and beamline mechanical systems.) This issue has been assigned to ASD-Adm). (R. Gerig reported on 6/18/03 that this issue has been discussed by O. Singh and S.Sharma and that this responsibility may beong to AD-ME (Sharma reported on 8/14/03 that Singh has agreed that ME is responsible for the Scrapers. Sharma offered to speak with Singh about finalizing the issue.)

ASD-ME provides mechanical components and spares for Storage Ring XPBM Positioners as requested by AOD-DG. The ME and VAC Groups provide installation assistance to AOD-DG.

ASD RF Systems

ASD Survey and Alignment

**ASD Vacuum Systems** 

The Vacuum Systems Group provides review and approval of all vacuum specifications for hardware utilized by the Diagnostics Group. The Vacuum Group also provides maintenance support for this equipment.

The ASD Vacuum Group will participate in the repair or installation of front end XBPM assemblies if such work requires vacuum system intervention. The Vacuum Group will also provide maintenance support for this equipment.

XFD Magnetic Devices Group

The magnetic devices group provides maintenance support for the sector 35 insertion device. This includes routine maintenance of the drive system and the remeasurement of the magnetic properties, if required.

XFD Experimental Facilities Engineering

AOD Diagnostics is responsible for providing the design of RFBPMs for ID vacuum chambers to the EFE Group. The EFE Group will procure the RFBPMs and install them into the chamber. Hookup of the RFBPMs to electronic systems is the responsibility of AOD Diagnostics.

AOD Diagnostics is responsible for the engineering analysis of XBPMs for front ends and beamlines. The EFE Group will perform the mechanical engineering and design in accordance with detailed specifications provided by AOD Diagnostics.

APS	User Comm	unity		

# **Experiment Floor Operations Group:**

## **General Responsibilities:**

The Experiment Floor Operations Group has the operational responsibility for all insertion devices and front ends. It is responsible for authorizing maintenance and repair activities on these systems. Together with MCR Operations, its responsible for integrating shutdown maintenance schedules, for determining and assigning responsibility for beamline faults and downtime, for maintaining beamline operating records and for identifying system malfunctions that prevent normal beamline operation.

The group is responsible for providing user support on a day-to-day basis by facilitating user and APS interactions based on the user needs and ANL safety requirements. This includes, but is not limited to providing on-demand user orientation and training, administering the experiment safety review process, helping and instructing users to prepare service requests, making arrangements for training and reviews, etc. In addition, the group is responsible for providing surveillance of user activities to ensure compliance with APS, ANL and DOE requirements and in managing the shielding configuration control for all beamlines. The group participates in beamline design reviews, commissioning readiness reviews and shielding verification tests, and beamline interlock design and also is responsible for maintaining records of approved CAT sector designs and modifications and management/monitoring of CAT construction projects.

The Experimental Floor Operations Group is responsible for the maintenance of Ratchet door and door hardware.

The Experimental Floor Operations Group is responsible for the maintenance of the Super Doors.

#### **General Interfaces:**

The EFO group interfaces with most technical groups within AOD, ASD and XFD since the first APS point of contact for most users performing experiments on the floor is the floor coordinator. It is the coordinators' responsibility to provide answers or further contacts for continued discussion in areas that affect beamline technical equipment or processes / procedures that affect performing an experiment.

### **Group Specific Interfaces:**

### **AOD Main Control Room Operations**

Provide close interface for information exchange on current operation, problem status and potential issues, which may affect either storage ring operation and/or user experiments.

#### **AOD Diagnostics**

Provide information regarding the diagnostics and information screens for beam properties and stability, so the information can be clearly disseminated by the floor coordinators to both frequent and first-time users.

#### **AOD Operations Analysis**

Provide information regarding issues on beam performance, lattice criteria and limitations and diagnosis of other beam issues to identify problems either with the storage ring and/or beamlines.

#### **AOD Experiment Floor Operations**

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#### AOD Beamline Control and Data Acquisition

#### AOD Information Systems Support (Computer Support and MIS Sections)

Computer support section coordinates through the floor coordinators to identify issues, design, installation and operation of network upgrades and general computer support. The MIS section provides administrative applications, as needed, to support the functions of the EFO group.

## AOD User Administration and Support

EFO group coordinates with UAS on user orientation and training and in defining and establishing other user administration requirements.

#### **AOD Technical Beamline Support**

#### **AOD Site Operations**

Interface areas include working with users and site operations to define utility needs and connection methods.

## ASD Controls Group

<u>Interface areas are user status panels and ID control systems.</u> (The ASD CTLS Group is not sure the interface is defined correctly and offers the following text to help clarify:

"The ASD Controls Group is responsible for the Machine Status Link, the Machine Status Panels, and associated VME modules.")

## **ASD Electrical Systems**

Coordination of work between technical group and user needs and schedule, including the configuration management of PSS critical components (beam stops, shutters, etc), which is the responsibility of AOD Floor Operations Group.

#### **ASD Mechanical Systems**

Coordination of work between technical group and user needs and schedule.

## **ASD RF Systems**

None

#### ASD Survey and Alignment

Coordination of work between technical group and user needs and schedule.

#### ASD Vacuum Systems

Coordination of work between technical group and user needs and schedule.

## XFD Magnetic Devices Group

Coordination of work between technical group and user needs and schedule.

## XFD Experimental Facilities Engineering

Coordination of work between technical group and user needs and schedule.

#### **APS User Community**

24/7 support for beamline station doors and other station hardware. (There is a Service Contract in place with Tecknit for the doors and other station hardware, but they do not provide 24/7 support, and in the past Users have been sometimes reluctant to call Tecknit for routine maintenance because there is a cost involved.)

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# **Beamline Controls and Data Acquisition Group:**

## **General Responsibilities:**

This group is responsible for providing EPICS support to APS CATs by providing EPICS code and APS developed applications, and provide documentation and training for EPICS developers and users. The group is also responsible for providing EPICS development systems and support and serve as a clearinghouse for other CAT developed applications.

#### **General Interfaces:**

## **Group Specific Interfaces:**

**AOD Main Control Room Operations** 

**AOD Diagnostics** 

**AOD Operations Analysis** 

**AOD Experiment Floor Operations** 

AOD Beamline Control and Data Acquisition

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AOD Information Systems Support (Computer Support and MIS Sections)

The Computer Support Section is responsible for providing the network infrastructure to the users.

**AOD User Administration and Support** 

AOD Technical Beamline Support

**AOD Site Operations** 

ASD Controls Group

The Controls Group heads the development of EPICS and has to work closely with the BCDA group to ensure continued compatibility of the software.

**ASD Electrical Systems** 

ASD Mechanical Systems

ASD RF Systems

ASD Survey and Alignment

ASD Vacuum Systems

XFD Magnetic Devices Group

XFD Experimental Facilities Engineering

**APS CAT Community** 

# **Information Systems Support Group:**

## **General Responsibilities:**

## **Computer Support Section**

Responsibility for network infrastructure of the entire APS and its interface to the rest of ANL and the world off site is the responsibility of the AOD Computer Support Group. This applies to network infrastructure of User Groups and the Guest House.

Responsibility for procurement and maintenance of PC and UNIX computing hardware and software is with the AOD Computer Support Group. This applies to systems used for accelerator controls, administrative computing and design/drafting. The exception to this is the administrative database systems where the responsibility lies with AOD MIS group. Personnel from other divisions can be assigned to computer support under supervision of the AOD Computer Support Group on a matrix basis.

The AOD Computer Support Group is responsible for data backup on all (non-portable) UNIX and PC-type computers used by APS employees. Backup service for CAT data files is by explicit written agreement only.

Computer security measures for all APS computers will be defined and implemented or verified by the AOD Computer Support Group.

The AOD ISS group is responsible for the maintenance, backup, and upgrading of Cardkey computer systems. The costs associated with these items remains the responsibility of the AOD-User Administration and Support Office.

#### **Management Information Systems Section**

This section is responsible for managing the Oracle administrative database and for the development and maintenance of database applications as needed by the other groups of the APS.

### **General Interfaces:**

The groups provide services to all of APS and therefore the interfaces change as the facility and user needs evolve. Both sections maintain records of performance in attempt to measure "customer" satisfaction.

### **Group Specific Interfaces:**

**AOD Main Control Room Operations** 

**AOD Diagnostics** 

**AOD Operations Analysis** 

**AOD Experiment Floor Operations** 

AOD Beamline Control and Data Acquisition

AOD Information Systems Support (Computer Support and MIS Sections)

AOD User Administration and Support

**AOD Technical Beamline Support** 

**AOD Site Operations** 

ASD Controls Group

The AOD Computer Support Group is responsible for providing a redundant network connection (fiber optic) and a terminal server port (for the CPU console) for every IOC on the Controls subnet. The interface point is at the IOC end of the fiber optic cables providing these connections.

ASD Electrical Systems

**ASD Mechanical Systems** 

ASD RF Systems

ASD Survey and Alignment

ASD Vacuum Systems

XFD Magnetic Devices Group

The AOD-ISS Group is reposnisble for providing computer support of the XFD-MD Magnetic Measurement Room.

XFD Experimental Facilities Engineering

**APS CAT Community** 

# **User Administration and Support Group:**

## **General Responsibilities:**

The User Administration and Support Group is responsible for maintaining and operating the User Office, which is the "front door" for all users to the APS. The group is responsible for the registration and processing of users, which includes, but is not limited to, preparing registration materials, user agreements, issuing user badges and performing user orientation and training. The group also administers the Independent Investigator program, collects user statistics, prepares informational materials, and organizes User, PEB, APSUO and Research Directorate meetings. In addition, the group provides support services to CATs in organizing CAT meetings and workshops.

### **General Interfaces:**

#### **Group Specific Interfaces:**

**AOD Main Control Room Operations** 

**AOD Diagnostics** 

**AOD Operations Analysis** 

AOD Experiment Floor Operations
Provides off-hours orientation/training backup.

AOD Beamline Control and Data Acquisition

AOD Information Systems Support (Computer Support and MIS Sections)

The User Administration and Support Group relies on the MIS section for ORACLE database support and for the development of CAT/user administrative applications.

AOD User Administration and Support na

**AOD Technical Beamline Support** 

**AOD Site Operations** 

ASD Controls Group

The ASD Controls Group is responsible for the maintenance, backup, and upgrading of Cardkey computer systems. The costs associated with these items remains the responsibility of the AOD-User Administration and Support Office.

**ASD Electrical Systems** 

**ASD Mechanical Systems** 

ASD RF Systems

ASD Survey and Alignment

ASD Vacuum Systems

XFD Magnetic Devices Group

Liz Moog does not know of any interface with the AOD User Adm Group.

XFD Experimental Facilities Engineering

**APS CAT Community** 

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# **Technical Beamline Support**

### **General Responsibilities:**

The <u>Technical Beamline Support</u> Group is an evolving organization, which will provide the operating personnel dedicated to the operation of BES-funded CATs. This organization will grow as an increasing number of CATs have their DOE/BES operating funds transferred to APS and the associated personnel are hired as part of this group.

#### **General Interfaces:**

The interfaces are not yet well determined, but it is expected that some support from the other APS technical groups will need to be coordinated through this group to expedite efficient operation of the BES-funded CATs.

#### **Group Specific Interfaces:**

AOD Main Control Room Operations

**AOD Diagnostics** 

**AOD Operations Analysis** 

**AOD Experiment Floor Operations** 

AOD Beamline Control and Data Acquisition

AOD Information Systems Support (Computer Support and MIS Sections)

AOD User Administration and Support

AOD Technical Beamline Support

**AOD Site Operations** 

**ASD Controls Group** 

ASD Electrical Systems

ASD Mechanical Systems

ASD RF Systems

ASD Survey and Alignment

ASD Vacuum Systems

XFD Magnetic Devices Group

XFD Experimental Facilities Engineering

**APS CAT Community** 

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# **Building Management and Services:**

### **General Responsibilities:**

This section of Site Operations is responsible for managing, maintaining and directing support activities related to the non-technical building systems, such as stock room operation, package deliveries, conference center operations, and other building manager responsibilities.

#### **General Interfaces:**

This section interfaces with all residents of the APS facility (APS staff and users) for all building services, including, but not limited to, custodial services, PFS building maintenance, grounds, emergency support services (fire department, security).

## **Group Specific Interfaces:**

**AOD Main Control Room Operations** 

**AOD Diagnostics** 

**AOD Operations Analysis** 

**AOD Experiment Floor Operations** 

AOD Beamline Control and Data Acquisition

AOD Information Systems Support (Computer Support and MIS Sections)

AOD User Administration and Support

AOD Technical Beamline Support

**AOD Site Operations** 

ASD Controls Group

ASD Electrical Systems

**ASD Mechanical Systems** 

ASD RF Systems

ASD Survey and Alignment

ASD Vacuum Systems

XFD Magnetic Devices Group

XFD Experimental Facilities Engineering

**APS CAT Community** 

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# **Facility Engineering Group:**

## **General Responsibilities:**

This group is responsible for providing design and management resources for building and utility upgrades and new installations and for maintaining the as-built drawings of the mechanical utilities in building 450 and as-built drawings for all buildings that are part of the APS facility.

The AOD CF Group is reponsible for esnuring that the HVAC in the Experiment Hall is operating within APS facility design limits.

Responsibility for the operation and maintenance of the Metasys feedback control loops for air conditioning. (Including temperature sensors PLCs, interface to EPICS and associated electronic circuits.)

This group is also responsible for the supply of compressed air and process water up to the mezzanine isolation valves.

### **General Interfaces:**

This group interfaces with the ANL PFS support organizations in maintaining the utility infrastructure for the facility. Operating conditions for the water systems, HVAC, etc. in technical spaces are determined by the technical group responsible for the space. In the case of the accelerator enclosures, the Machine Manager is responsible for the specific space.

## **Group Specific Interfaces:**

**AOD Main Control Room Operations** 

**AOD Diagnostics** 

**AOD Operations Analysis** 

**AOD Experiment Floor Operations** 

AOD Beamline Control and Data Acquisition

AOD Information Systems Support (Computer Support and MIS Sections)

AOD User Administration and Support

**AOD Technical Beamline Support** 

**AOD Site Operations** 

ASD Accelerator Physics Group

The AOD Conventional Facilities Group is responsible for providing HVAC for the Injector Test Stand and Laser Gun Room as specified by the Machine Manager.

**ASD Controls Group** 

**ASD Electrical Systems** 

Electrical Systems Group provides electrical engineering support for AOD Conventional Facilities Group, being responsible for design, Architect Engineer (AE) design review, construction oversight and documented acceptance and turnover of equipment to the customer of new conventional electrical installations.

**ASD Mechanical Systems** 

ASD RF Systems

ASD Survey and Alignment

ASD Vacuum Systems

XFD Magnetic Devices Group

The AOD-CGF Group is responsible for the HVAC perfomance of the XFD-MD Magnetic Measurement Room.

XFD Experimental Facilities Engineering

**APS User Community** 

24/7 support for beamline station doors and other station hardware. (There is a Service Contract in place with Tecknit for the doors and other station hardware, but they do not provide 24/7 support, and in the past Users have been sometimes reluctant to call Tecknit for routine maintenance because there is a cost involved.)

## **User Technical Interface:**

### **General Responsibilities:**

This User Technical Interface staff is responsible for organizing and performing design reviews for new beamlines or beamlines planning major modifications. The staff is also responsible for

providing technical guidance to user groups on issues related to beamline operation and compatibility with existing sources and components and also for providing guidance, assistance and technical review to users procuring their components and/or equipment through the APS procurement office

#### **General Interfaces:**

## **Group Specific Interfaces:**

**AOD Main Control Room Operations** 

**AOD Diagnostics** 

**AOD Operations Analysis** 

AOD Experiment Floor Operations

AOD Beamline Control and Data Acquisition

AOD Information Systems Support (Computer Support and MIS Sections)

**AOD User Administration and Support** 

**AOD Technical Beamline Support** 

**AOD Site Operations** 

**ASD Controls Group** 

**ASD Electrical Systems** 

**ASD Mechanical Systems** 

**ASD RF Systems** 

ASD Survey and Alignment

**ASD Vacuum Systems** 

XFD Magnetic Devices Group

What organization is responsible for the maintenance of Magnet Power Supplies for APS Users? (L. Moog).

XFD Experimental Facilities Engineering

**APS CAT Community** 

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#### **APS Radiation Scientist:**

## **General Responsibilities:**

The APS Radiation Scientist is responsible for:

- 1. the shielding configuration control in the accelerator enclosures
- 2. shielding calculations for accelerator systems and user beamlines
- 3. reviewing and approving the shielding designs, installations and ensuring that radiation surveys are performed and meet design criteria for all accelerators and user beamlines
- 4. reviewing and approving the shielding verifications for all new beamlines
- 5. reviewing and approving health physics area surveys and dosimetry
- 6. conducting research which improves characterization and dosimetry of the radiation environment potentially seen by personnel and/or accelerator or beamline equipment, and includes, but is not limited to, investigating causes and developing mitigation for accelerator component damage, insertion device permanent magnet damage, etc.

#### **General Interfaces:**

## **Group Specific Interfaces:**

**AOD Main Control Room Operations** 

**AOD Diagnostics** 

**AOD Operations Analysis** 

**AOD Experiment Floor Operations** 

AOD Beamline Control and Data Acquisition

AOD Information Systems Support (Computer Support and MIS Sections)

AOD User Administration and Support

**AOD Technical Beamline Support** 

**AOD Site Operations** 

**ASD Controls Group** 

ASD Electrical Systems

**ASD Mechanical Systems** 

**ASD RF Systems** 

ASD Survey and Alignment

ASD Vacuum Systems

XFD Magnetic Devices Group

XFD Experimental Facilities Engineering

The AOD Radiation Scientist is responsible for approving XFE shield designs and providing engineering calculations on shielding efficiency.

The AOD Radiation Scientist is responsible for verifying the configuration of new shield installations and for validating shielding performance.

**APS User Community** 

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# **APS Health Physics:**

## **General Responsibilities:**

The Health Physics section is responsible for:

- 1. performing and recording area surveys, active and passive dosimetry, and investigating abnormal radiological situations
- 2. calibration and maintenance of the radiation monitors
- 3. supporting user needs when working with radiological materials
- 4. informing and advising the Radiation Scientist and APS management of new DOE radiological requirements

#### **General Interfaces:**

Radiation monitors are installed by AOD-HP. ASD-ES installs ACIS interface and AC Power. (See ACIS Controlled Equipment Interface Document). ASD-CTL provides remote monitoring for the radiation monitors when requested by AOD-OPS.

## **Group Specific Interfaces:**

**AOD Main Control Room Operations** 

**AOD Diagnostics** 

**AOD Operations Analysis** 

**AOD Experiment Floor Operations** 

AOD Beamline Control and Data Acquisition

AOD Information Systems Support (Computer Support and MIS Sections)

**AOD** User Administration and Support

**AOD Technical Beamline Support** 

**AOD Site Operations** 

ASD Accelerator Physics

The AOD Helath Physics Group is responsible for the installation and maintenance of Radiation Monitors in the Injector Test Stand and Laser Room.

ASD Controls Group

The Controls Group is responsible for maintaining the EPICS interfaces for Radiation Monitors.

ASD Electrical Systems

**ASD Mechanical Systems** 

**ASD RF Systems** 

ASD Survey and Alignment

**ASD Vacuum Systems** 

XFD Magnetic Devices Group

XFD Experimental Facilities Engineering

**APS CAT Community** 

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# **Safety Personnel:**

#### **General Responsibilities:**

The AOD ES&H Coordinator is responsible for providing guidance and surveillance of divisional and user safety activities and training for compliance with APS and ANL requirements.

The safety personnel, currently in the CAT Operations Group, are responsible for providing assistance to the CAT organizations on safety matters, primarily in the areas of experiment safety review and other safety related support.

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## **Procurement Section:**

# **General Responsibilities:**

The APS Procurement Section is responsible for providing a procurement department service locally to the APS for complex and/or user related procurements

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# **Quality Assurance Representative:**

# **General Responsibilities:**

The divisional QAR is responsible for divisional compliance with the ANL and APS QAP and for providing guidance and information to division members on QA requirements.

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# **Document Control Center:**

## **General Responsibilities:**

This section of the Site Operations is responsible for maintaining a repository of hard and/or soft copy of all facility critical documentation, for archiving of the documentation and for maintaining processes for document management and control.